

THE WEATHER OF 1941 IN THE UNITED STATES

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(Weather Bureau, Washington, D. C., February 1, 1942)

On the basis of weighted averages the year 1941 was practically normal in respect to mean temperature, the departure being less than 1° above the mean value of 53.7° . The extremes of temperature on the weighted basis were 55.6° in 1921, and 51.8° in 1917. The largest annual departures of temperature in the various sections for 1941 were $+3.0^{\circ}$ in Iowa, followed by $+2.7^{\circ}$ in North Carolina, and $+2.5^{\circ}$ in Minnesota and Wisconsin. The greatest negative departure was -1.4° in Arizona, with the remainder of the States all less than -1° .

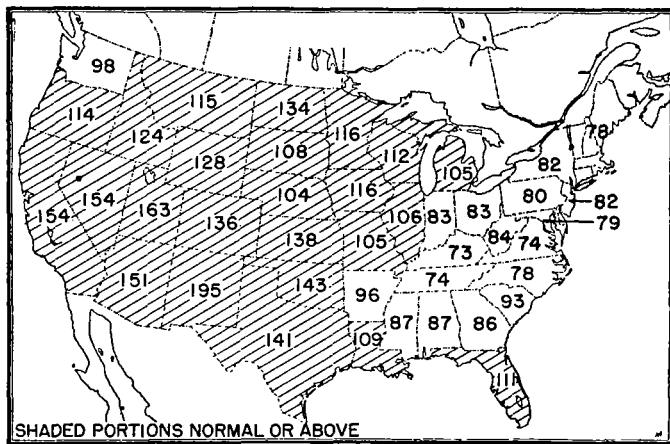


FIGURE 1.—Percentage of normal precipitation, 1941.

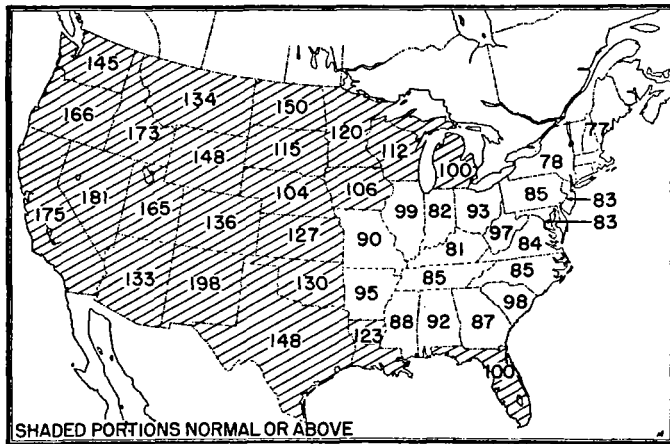


FIGURE 2.—Percentage of normal precipitation, April 1–September 30, 1941

The relatively warmest month was December, when every section showed positive departures from normal. In this month the greatest plus departure was 9.2° in North Dakota, while Iowa had 7.8° above, and Wisconsin 7.4° above normal. Other warm months were November, when only six States were below normal, May with two States below, and January, when subnormal departures were small. The relatively coldest month was March, with a number of States reporting 5° or more below the normal. In this month the relatively coldest State was West Virginia with 7.5° below normal temperature, while South Carolina and Georgia had 6.2° and 6.1° respectively, below normal. Maximum temperatures of over 100° began to be recorded in March, with 102° in Nevada; the last month with 100° or over was October. The extreme highest for the year was 124° at two stations in California in July. Maximum temperatures of 100° or over were reported from every State, except five of the New England

group, with readings of as high as 110° to 112° general in the Great Plains.

Subzero temperatures were reported from some portions of the country into April, and were noted in higher elevations of the Rocky Mountain States in October. Temperatures as low as zero were reported south to Kentucky and Missouri in January, and to Virginia and Missouri in February, while an extreme of -6° was noted in North Carolina in March. Freezing weather was reported from the Gulf States in March, with a minimum of 22° in northern Florida. The lowest temperature for the year was -43° at Taylor Park, Colo. on January 3, 1941. The record extremes for the country are 134° at Greenland Ranch, Death Valley, Calif. on July 10, 1913, and of -66° at Riverside Ranger Station, Yellowstone National Park, Wyo., on February 9, 1933.

In general, the temperatures of 1941 followed the general trend since the beginning of the century, with a tendency to above-normal warmth very marked in all seasons of the year. The winter was slightly colder than normal in parts of the Atlantic area, but in all other sections above-normal warmth prevailed, the plus departures being especially large in the western half of the country. The spring season was slightly cooler than normal in the South, but was substantially warmer than normal in the northern half of the country. Summer was somewhat cooler than usual in the Southwest and parts of the Great Basin, but elsewhere it was relatively warm, especially in the northern and western portions of the country.

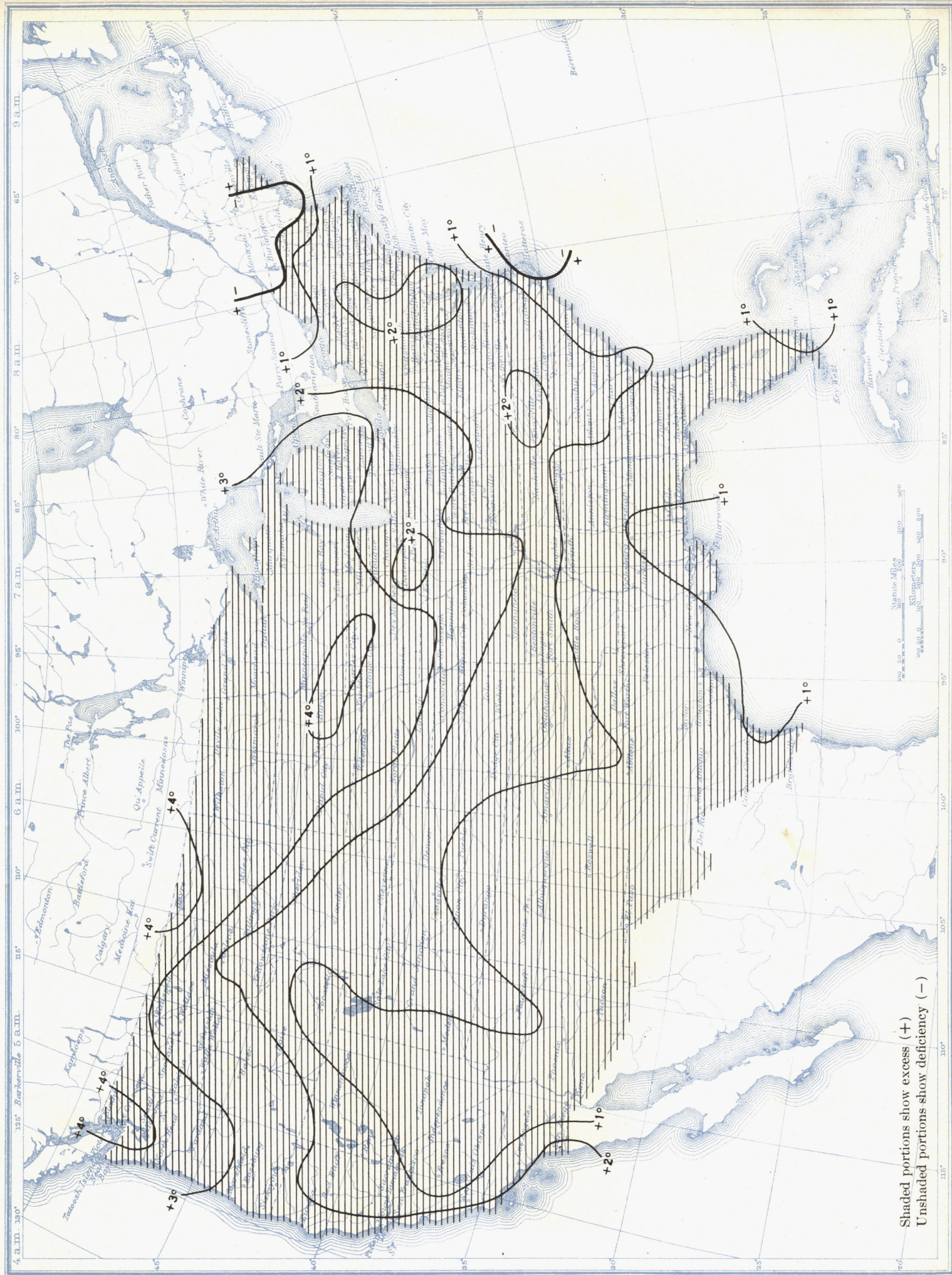
See table 1 and the Annual Temperature Departure chart for detailed supplements to these remarks.

The average annual precipitation found by weighting the State areas was 32.36 inches or somewhat over 3 inches higher than the mean for the entire country for the period 1886 to 1940, inclusive. For the country as a whole 1941 was the third wettest year of record, exceeded only in 1905 with 32.69 inches, and 1915 with 32.74 inches.

Figure 1 and table 2 show the percentage of annual precipitation for the year as a whole and by months. For the entire year the relatively wettest State was New Mexico with 195 percent of the normal annual amount. Other States showing over 50 percent above the usual annual normal were Utah with 163 percent, Nevada and California with 154 percent each, and Arizona with 151 percent. With the exception of Washington, which was slightly below normal, the subnormal rainfall of the year was confined almost exclusively to areas east of the Mississippi River, although Arkansas was 4 percent below normal. The relatively driest States were Kentucky, Tennessee, Virginia, and New England, ranging from 22 to 27 percent less than the normal amount.

Probably the wettest month of the year was June, when 15 States reported 150 percent, or more, of normal. The relatively wettest State in this month was Utah with 302 percent of the normal June amount; Oregon, Nevada, and Idaho also reported over twice the normal. Another wet month in some portions of the country was August, with 6 States reporting over twice the normal; the relatively wettest State this month was Oregon, with 352 percent of normal. In September, New Mexico reported 371 percent of the normal amount, while in October 14 States had over twice the normal. In this month Oklahoma reported 382 percent of normal, Missouri 353 percent, Illinois 354 percent, and Kansas 330 percent of normal.

Annual Temperature Departures (°F.) in the United States, 1941



Shaded portions show excess (+)
Unshaded portions show deficiency (-)

Annual Precipitation Departures (inches) in the United States, 1941

(Corrected)



Shaded portions show excess (+)
Unshaded portions show deficiency (-)

Recipients of the December 1941 MONTHLY WEATHER REVIEW are requested to replace Chart of Annual Precipitation Departures in the United States for 1941, facing page 361, in that issue, which was incorrectly printed, by the corrected chart herewith.

The greatest monthly fall at any station in the United States was 30.76 inches at West Branch, Calif., in December, while 29.12 inches were recorded at a station in this State in January. In October, the monthly totals were extremely heavy in the central and lower Great Plains, as well as the central and lower Mississippi Valley, with extremes in six States throughout this area over 16 inches. With one exception, each month had some station with no rain; Peru, N. Y., reported 0.04 inches in April 1941, for a country-wide minimum.

The general review of 1941 precipitation might be briefly summarized by stating that the year was outstanding for heavy falls, with the last half of the year especially wet nearly everywhere west of the Mississippi River. The State with the greatest total annual precipitation was Louisiana with 60.57 inches; Nevada, with 13.50 inches, was the driest. It was the wettest year of record in North Dakota, Utah, and New Mexico, with the last State

having about a third more precipitation than in any previous year. It was the second wettest year of record in Nevada, Arizona, Texas, Oklahoma, and Kansas. In a limited eastern area, the year was considerably drier than normal, with Tennessee having the driest year of record, and Kentucky, Virginia, and Maryland-Delaware, the second driest.

In the growing season, the period from April 1 to September 30, 1941, the distribution of moisture was quite favorable compared to some recent dry years. No State was more than 23 percent below the normal amount for these 6 months, and the larger crop-producing areas west of the Appalachians were within 20 percent of the normal in the Ohio Valley, and from 4 to 50 percent above normal in the Great Plains. For this portion of the year, the relatively wettest State was New Mexico, with 198 percent of normal, and the relatively driest was New England, with 77 percent.

TABLE 1.—Monthly and annual temperature departures from normal for the year 1941

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Alabama.....	+1.6	-4.8	-5.3	+2.3	+2.1	+5	+3	+1.0	+2.5	+7.2	.0	+2.7	+6
Arizona.....	+1.4	+2.5	-1.6	-6.1	-7	-4.0	-1.2	-2.1	-3.0	-3.4	+3	+8	-1.4
Arkansas.....	+2.4	-2.7	-5.1	+2.2	+2.2	-9	+7	+6	+9	+5.4	-1.3	+1.8	+5
California.....	+2.0	+1.7	+1.2	-3.0	+9	-2.5	-2	-2.4	-2.4	-2.5	+1.0	+2	-5
Colorado.....	+1.6	+3.4	-5	-1.4	+3.1	-1.6	-1.6	+5	-1.2	.0	+1.8	+2.7	+6
Florida.....	-1.3	-5.0	-4.8	+7	-1.2	+6	.0	+1.9	+1.1	+4.4	+8	+3.5	+1
Georgia.....	+5	-5.1	-6.1	+2.1	+1.2	+3	+4	+1.6	+1.8	+6.4	+4	+2.4	+5
Idaho.....	+3.3	+4.7	+3.9	+7	+1.1	-5	+1.2	-7	-4.3	-1.2	+1.7	+2.6	+1.0
Illinois.....	+3.2	-1.7	-4.0	+4.8	+4.2	+1.3	+6	+1.9	+2.4	+3.4	+2.1	+6.4	+2.0
Indiana.....	+1.8	-2.6	-4.7	+5.2	+3.1	+9	+7	+1.2	+3.3	+4.0	+1.7	+5.4	+1.7
Iowa.....	+5.3	.0	-1.1	+5.1	+5.8	+4	+4	+2.9	+2.6	+2.8	+3.7	+7.8	+3.0
Kansas.....	+3.5	+1.1	-3.0	+1.5	+3.9	-1.7	-2	+8	+1.2	+1.1	+1.9	+4.6	+1.2
Kentucky.....	+9	-3.9	-5.8	+3.9	+2.3	+8	-6	+1.0	+2.5	+5.6	-4	+4.6	+9
Louisiana.....	+1.6	-3.7	-5.8	+1.7	+3	-2	+2	+1.5	+1.7	+6.5	-2.6	+2.2	+3
Maryland-Delaware.....	-9	-1.8	-5.7	+4.6	+1.6	-2	+2	-3	+2.3	+5.8	+2.8	+4.2	+1.0
Michigan.....	+1.2	+1.5	-3.6	+6.2	+4.3	+2.9	+1.9	+8	+2.9	+1.7	+2.7	+6.3	+2.4
Minnesota.....	+4.2	.0	-1.0	+5.7	+5.2	+1.0	+1.7	+1.3	+8	+1.3	+3.3	+6.9	+2.5
Mississippi.....	+1.4	-4.1	-5.9	+1.8	+1.6	+4	+3	+1.1	+2.2	+6.9	-2.0	+3.0	+6
Missouri.....	+4.0	-4	-3.4	+4.0	+4.4	+5	+1.2	+2.6	+2.2	+3.9	+1.2	+5.3	+2.1
Montana.....	+4.7	+5.2	+3.9	+1.1	+2.7	+9	+2.0	+1.0	-4.1	-1.4	+3.2	+2.5	+1.8
Nebraska.....	+3.0	+2.0	-1.5	+1.6	+5.4	-6	+3	+2.0	+7	+7	+3.2	+4.2	+1.8
Nevada.....	+5.0	+5.7	+2.3	-3.1	+2.0	-2.3	+1	-2.3	-3.9	-1.9	+6	+4.0	+5
New England.....	-3.2	+1.2	-4.2	+4.9	+1.0	+1.0	+4	-1.6	+6	+2	+2.7	+3.0	+5
New Jersey.....	-1.5	-1.3	-4.7	+5.9	+2.2	+4	.0	-1.0	+1.7	+4.3	+3.1	+3.4	+1.0
New Mexico.....	+6	+2.5	-2.3	-3.7	+2	-3.8	-2.2	-1.0	-1.1	-6	+1.1	+2.3	-7
New York.....	-1.8	+1	-5.5	+6.0	+1.8	+1.8	+1.8	-1.3	+2.0	+2.2	+4.3	+3.5	+1.2
North Carolina.....	-7	-5.4	-5.9	+3.0	+1.7	.0	+9	+1.0	+2.2	+6.2	+1.2	+2.5	+6
North Dakota.....	+4.7	+2.6	-7	+2.7	+4.6	+1.2	+1.8	+1.6	-1.6	+6	+3.8	+9.2	+2.7
Ohio.....	+1.4	-2.1	-5.3	+5.7	+2.8	+1.3	+1.4	.0	+3.2	+4.7	+2.3	+5.5	+1.7
Oklahoma.....	+3.4	-2	-4.3	+9	+2.5	-2.5	-3	-3	+5	+2.1	+2	+3.9	+5
Oregon.....	+3.2	+4.1	+3.5	+5	+6	-1.3	+1.7	-1.1	-3.0	-1.0	+2.3	+2.1	+1.0
Pennsylvania.....	-5	-1.9	-5.7	+6.4	+1.8	+5	+9	-1.5	+1.8	+4.4	+2.8	+4.1	+1.1
South Carolina.....	-7	-6.7	-6.2	+2.4	+1.3	.0	+5	+1.4	+2.2	+6.7	+1.0	+2.3	+4
South Dakota.....	+2.8	+2.2	-2	+2.6	+6.2	+3	+1.8	+2.9	.0	-1	+3.6	+6.8	+2.4
Tennessee.....	+1.0	-4.8	-5.5	+3.4	+2.8	+1.5	+1.7	+2.3	+3.2	+7.1	-8	+3.5	+1.3
Texas.....	+2.2	-2.2	-5.8	-8	+3	-2.4	-1.0	-2	+6	+4.2	-1.3	+2.0	-4
Utah.....	+1.9	+3.9	+1.1	-3.6	+1.5	-2.6	-1.1	-1.4	-3.8	-2.0	+3	+4.0	-2
Virginia.....	-8	-3.6	-5.8	+4.1	+2.0	-1	+8	+4	+2.5	+6.5	+1.9	+3.9	+1.0
Washington.....	+4.7	+5.1	+5.6	+3.5	+5	.0	+4.0	.0	-2.4	.0	+2.9	+2.9	+2.2
West Virginia.....	-1	-4.1	-7.5	+4.2	+5	+4	+1.2	-6	+1.4	+4.9	+1.1	+4.5	+5
Wisconsin.....	+4.0	+6	-3.8	+6.4	+4.8	+1.5	+1.1	+1.2	+1.9	+1.4	+3.7	+7.4	+2.5
Wyoming.....	+2.4	+4.2	+9	-3	+3.6	-4	+6	+7	-3.0	-1.3	+2.4	+3.5	+1.1

TABLE 2.—Percentage of normal precipitation, 1941

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Alabama.....	56	53	78	68	17	98	147	117	84	77	77	149	87
Arizona.....	140	164	286	394	224	77	73	94	187	201	114	165	151
Arkansas.....	80	88	46	103	44	98	128	108	106	259	62	86	96
California.....	125	173	139	259	123	103	114	230	33	127	79	222	154
Colorado.....	137	78	152	149	112	156	104	108	225	257	52	97	136
Florida.....	126	116	121	150	37	114	139	72	92	129	155	145	111
Georgia.....	45	45	92	57	26	142	126	53	53	87	62	172	86
Idaho.....	78	72	43	123	181	201	120	283	165	112	95	171	124
Illinois.....	109	35	39	111	74	106	84	82	137	334	95	75	106
Indiana.....	54	32	24	77	55	147	76	69	65	252	93	69	83
Iowa.....	162	46	57	91	80	133	60	55	203	257	106	161	116
Kansas.....	302	70	62	124	94	159	94	122	169	330	67	128	138
Kentucky.....	58	19	35	73	30	111	133	84	39	156	81	71	73
Louisiana.....	73	66	90	72	165	151	131	78	148	204	73	75	109
Maryland-Delaware.....	94	46	63	83	64	124	124	72	16	57	72	110	79
Michigan.....	96	79	51	88	87	73	84	129	140	212	115	86	105
Minnesota.....	123	79	78	150	109	124	67	122	165	165	49	77	116
Mississippi.....	56	54	82	76	31	86	147	93	91	187	100	92	87
Missouri.....	154	29	25	116	48	87	73	81	141	353	88	108	105
Montana.....	49	46	49	123	106	133	96	142	224	93	132	125	115
Nebraska.....	178	71	71	141	65	129	74	55	190	117	76	147	104
Nevada.....	93	125	95	223	111	233	203	251	80	296	114	164	154
New England.....	72	64	71	31	80	101	126	78	43	85	86	98	78
New Jersey.....	97	68	73	64	50	137	134	85	8	56	91	101	82
New Mexico.....	205	123	311	217	391	163	107	100	371	270	59	107	195
New York.....	71	72	75	52	54	88	122	81	62	114	78	102	82
North Carolina.....	56	47	92	93	27	108	147	72	39	50	52	116	78
North Dakota.....	115	48	76	158	126	162	70	138	292	125	65	29	134
Ohio.....	65	20	29	51	70	156	109	99	54	185	69	68	83
Oklahoma.....	139	179	42	175	101	164	75	121	145	382	66	89	143
Oregon.....	92	65	36	85	183	243	120	352	151	106	99	158	114
Pennsylvania.....	81	35	61	58	58	118	119	104	38	85	86	98	80
South Carolina.....	49	42	116	87	13	177	147	86	60	47	191	93	93
South Dakota.....	89	46	48	131	59	152	67	81	172	168	34	56	108
Tennessee.....	55	23	54	82	26	80	168	108	26	130	78	69	74
Texas.....	91	161	150	148	153	184	136	113	145	237	53	76	141
Utah.....	101	132	135	241	116	302	142	131	112	316	123	178	163
Virginia.....	69	35	61	92	29	103	154	62	43	38	52	113	74
Washington.....	80	52	43	79	185	131	44	274	182	93	81	117	98
West Virginia.....	75	31	50	62	57	138	118	118	76	104	83	67	84
Wisconsin.....	118	62	71	89	116	68	76	147	180	189	73	109	112
Wyoming.....	63	63	85	199	72	168	132	209	146	117	104	134	128

TABLE 3.—Monthly and annual precipitation (inches), 1941

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Alabama.....	2.74	2.78	4.60	2.93	0.66	4.24	7.97	5.29	2.76	2.14	2.51	7.32	45.94
Arizona.....	1.86	2.17	2.97	2.52	.74	.27	1.64	2.19	2.13	1.55	1.00	1.96	21.00
Arkansas.....	3.43	2.92	2.21	5.04	2.22	4.01	4.82	3.94	3.57	8.11	2.31	3.67	46.26
California.....	6.05	7.25	4.99	4.27	1.21	.33	.08	.23	.15	1.56	1.95	8.15	36.22
Colorado.....	1.04	.76	1.98	2.67	2.13	2.19	2.31	2.12	2.97	3.01	.42	.87	22.47
Florida.....	3.44	3.55	3.74	4.30	1.48	7.62	10.02	5.10	6.22	5.46	3.40	4.01	58.34
Georgia.....	1.85	2.18	4.48	2.06	.90	6.27	7.18	4.29	1.96	2.32	1.68	7.28	42.45
Idaho.....	1.62	1.20	.74	1.68	2.98	2.43	.73	1.70	1.63	1.55	1.93	3.37	21.56
Illinois.....	2.50	.75	1.19	3.75	3.09	4.34	2.75	2.74	4.96	9.14	2.63	1.68	39.52
Indiana.....	1.66	.76	.92	2.68	2.24	5.64	2.54	2.33	2.22	6.86	2.84	1.98	32.67
Iowa.....	1.73	.50	.99	2.50	3.26	6.20	2.24	1.94	7.73	6.11	1.71	1.92	36.83
Kansas.....	1.99	.77	.90	3.22	3.54	6.35	3.05	3.86	4.76	6.51	.88	1.09	36.92
Kentucky.....	2.53	.66	1.65	2.89	1.20	4.67	5.51	3.13	1.16	4.25	2.80	2.80	33.25
Louisiana.....	3.54	8.05	4.72	8.34	7.61	7.01	8.04	3.96	5.80	6.63	2.83	4.04	60.57
Maryland-Delaware.....	3.05	1.41	2.17	2.98	2.19	4.88	5.27	8.11	.53	1.64	1.84	3.48	32.55
Michigan.....	1.80	1.32	1.10	2.27	2.77	2.29	2.38	3.41	4.52	5.80	2.84	1.78	32.28
Minnesota.....	.92	.58	.93	3.08	3.45	5.05	2.24	3.88	4.76	3.23	.57	.61	29.30
Mississippi.....	2.79	2.66	4.77	3.67	1.39	3.59	7.38	3.97	2.82	4.92	3.62	4.88	46.46
Missouri.....	3.41	.58	.78	4.50	2.30	4.23	2.75	3.15	5.83	10.14	2.29	2.21	42.17
Montana.....	.46	.35	.49	1.37	2.24	3.29	1.33	1.53	2.98	1.00	1.33	1.21	17.58
Nebraska.....	.98	.51	.78	3.46	2.28	4.86	2.47	1.55	4.06	1.88	.59	1.08	24.45
Nevada.....	1.10	1.28	.93	1.74	.98	1.14	.73	1.28	.33	1.66	.74	1.59	13.50
New England.....	2.47	2.02	2.34	1.04	2.66	3.42	4.70	3.02	1.62	2.99	2.96	3.21	32.45
New Jersey.....	3.47	2.47	2.76	2.32	1.86	5.09	6.40	4.06	.28	1.90	2.90	3.70	37.21
New Mexico.....	1.15	.87	2.33	1.93	4.50	2.02	2.75	2.49	5.97	3.10	.39	.74	28.24
New York.....	2.08	1.94	2.28	1.55	1.87	3.22	4.81	3.03	2.13	3.75	2.37	2.95	31.98
North Carolina.....	2.04	1.90	3.88	3.26	1.14	5.05	8.56	3.96	1.56	1.67	1.36	4.42	38.80
North Dakota.....	.54	.22	.58	2.30	2.94	5.54	1.78	2.86	4.61	1.32	.40	.15	23.22
Ohio.....	1.97	.76	.97	1.60	2.60	5.91	4.15	3.35	1.61	4.73	1.89	1.89	31.43
Oklahoma.....	2.03	2.42	.92	5.94	4.79	6.30	2.24	3.62	4.44	11.47	1.36	1.51	47.04
Oregon.....	3.52	2.00	.98	1.69	3.19	2.94	.54	1.48	1.83	2.03	3.71	5.99	29.90
Pennsylvania.....	2.62	1.04	2.10	2.01	2.25	4.96	5.11	4.37	1.33	2.76	2.46	3.09	34.10
South Carolina.....	1.74	1.81	4.52	2.65	.46	8.42	8.54	4.88	1.49	1.83	1.08	6.95	44.37
South Dakota.....	.49	.26	.54	3.90	1.77	5.35	1.75	1.85	2.87	2.17	.23	.32	21.50
Tennessee.....	2.60	1.02	2.90	3.62	1.06	3.39	7.43	4.34	.79	3.68	2.79	3.15	36.77
Texas.....	1.75	3.00	3.16	4.57	5.65	5.72	3.56	2.74	4.25	6.21	1.20	1.72	43.53
Utah.....	1.20	1.62	1.88	2.87	1.41	1.69	1.25	1.38	1.12	3.32	1.17	1.91	20.82
Virginia.....	2.20	1.09	2.26	3.05	1.09	4.27	6.93	2.69	1.36	1.12	1.27	3.47	30.80
Washington.....	3.96	1.93	1.43	1.87	3.69	2.07	2.29	2.08	3.32	2.74	4.21	6.39	33.98
West Virginia.....	2.73	.96	1.95	2.17	2.28	6.03	5.39	4.80	2.22	2.89	2.81	2.24	35.97
Wisconsin.....	1.41	.72	1.25	2.27	4.19	2.74	2.72	4.70	6.57	4.67	1.36	1.41	34.01
Wyoming.....	.49	.48	.99	3.17	1.53	2.68	1.72	2.30	1.67	1.28	.73	.99	18.03

Paths of Hurricanes and Other Tropical Storms of 1941

